

# **PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY**

**Powdertech Corporation  
5103 Evans Road  
Valparaiso, Indiana 46383**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

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|---|---|
| Operation Permit No.: T 127-8479-00021  |   |
| Issued by:<br>Felicia R. George, Assistant Commissioner<br>Office of Air Management | Issuance Date: December 16, 1998<br><br>Affected Pages: 8, 39 |
| 1 <sup>st</sup> Significant Permit Modification<br>127-12930-00021                  |   |
| Issued by:<br>Paul Dubenetzky, Chief<br>Permits Branch<br>Office of Air Quality     | Issuance Date:  |

- (p) Bulk handling operations, identified as A-BH-1, equipped with a dust collector, identified as A-BH-1, that does not need to be operated at all times, but only at the source's discretion, capacity: 1,600 pounds per hour of nickel-zinc ferrite.
- (q) Six (6) ball milling units, identified as A-BM-1 to A-BM-6, each equipped with a cartridge dust collector, identified as A-BM-1 to A-BM-6, that does not need to be operated at all times, but only at the source's discretion, capacity: 7,500 pounds per batch (500 pounds per hour) of nickel-zinc ferrite beads, each.

Area "B" (facilities with controls that are not necessary)

- (r) Three (3) fire bead screening units, identified as B-FB-1, equipped with a cartridge dust collector that does not need to be operated at all times, but only at the source's discretion, exhausting to the interior, capacity: 500 pounds per hour of copper-zinc and magnesium ferrite, each.
- (s) Four (4) green bead screening units identified as B-GB-1, equipped with a cartridge dust collector, that does not need to be operated at all times, but only at the source's discretion, exhausting to the interior, capacity: 500 pounds per hour of copper-zinc and magnesium ferrite, each.
- (t) One (1) wet ball milling operation, identified as B-WB-1, equipped with a cartridge dust collector, that does not need to be operated at all times, but only at the source's discretion, capacity: 10,000 pounds per batch (666.7 pounds per hour) of copper-zinc and magnesium ferrite beads.
- (u) One (1) ball mill operation, utilizing a wet batch process, identified as B-BM-1, equipped with a cartridge dust collector, that does not need to be operated at all times, but only at the source's discretion, exhausting to the interior, capacity: 580 pounds per hour.

Area "B"

- (v) One (1) 5-foot by 40-foot direct-fired calciner, identified as B-C-1, with PM emissions controlled by a baghouse exhausting through V-BCS-1, capacity: 1,500 pounds per hour of copper-zinc and manganese ferrite.

Area "C" (Coating Area)

- (w) One (1) ferrite bead coating line, identified as C-FB-1, capacity: 808 pounds per hour of ferrite beads. The ferrite bead coating line includes: coating tanks, blenders, feeders, tray loading and curing ovens, controlled by one (1) thermal oxidizer, exhausting through stack V-COD-1.

Area "C" (facilities with controls that are necessary)

- (x) One (1) 3-foot by 26-foot indirect-fired calciner unit, identified as C-CS-7, equipped with a baghouse dust collector, exhausting through V-CCS-7 and V-CHX-7, capacity: 1,600 pounds per hour of nickel-zinc ferrite, zinc oxide and ferrite particles.

## SECTION D.3

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

#### Area "B"

- (v) One (1) 5-foot by 40-foot direct-fired calciner, identified as B-C-1, with PM emissions controlled by a baghouse exhausting through V-BCS-1, capacity: 1,500 pounds per hour of copper-zinc and magnesium ferrite.

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.3.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the repro-graphic ferrite bead manufacturing facility shall not exceed the following rate listed in pounds per hour when operating at the process weight rate listed in tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

| Facility                      | Process Weight Rate (tons/hour) | Allowable PM Emissions (pounds/hour) |
|-------------------------------|---------------------------------|--------------------------------------|
| Direct-fired calciner (B-C-1) | 0.75                            | 3.38                                 |

### Compliance Determination Requirements

#### D.3.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test the facilities in this section by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if these facilities are in compliance. If testing is required by IDEM, compliance with the Particulate Matter limits specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

## **Indiana Department of Environmental Management Office of Air Management**

### **Technical Support Document (TSD) for a Significant Part 70 Operating Permit Modification**

#### **Source Background and Description**

Source Name: Powdertech Corporation  
Source Location: 5103 Evans Road, Valparaiso, Indiana 46383  
County: Porter  
SIC Code: 3499  
Operation Permit No.: T127-8479-00021 Issuance Date: December 16, 1998  
Permit Modification No.: 127-12930-00021  
Permit Reviewer: Aida De Guzman

The Office of Air Management (OAM) has reviewed a Part 70 permit application from Powdertech Corporation relating to the installation of a baghouse that will control the PM emissions from the one (1) 5-foot by 4-foot direct-fired calciner, identified as B-C-1, exhausting through V-BCS-1, capacity: 1,500 pounds per hour of copper-zinc and manganese ferrite. This calciner is currently not in compliance with 326 IAC 6-3 rule, as reflected in the Part 70 permit 127-8479-00021, issued on December 16, 1996.

#### **Justification for the Modification**

The installation of the new baghouse, will make calciner B-C-1 in compliance with 326 IAC 6-3 (Process Operations), and thus resulting in the "relaxation of some conditions" in Section D.3 of the issued Part 70 that will no longer be applicable. Therefore, the Part 70 Operating permit is being modified through a Significant Permit Modification, 326 IAC 2-7-12(d).

#### **History**

The 4-foot direct-fired calciner, B-C-1, permitted in the Part 70 permit, does not have a PM control equipment. It has a potential PM emissions of 4.5 pounds per hour (19.7 tons per year), which exceeded the PM allowable emissions of 3.38 pounds per hour under 326 IAC 6-3. The proposed installation of a baghouse will make this calciner in compliance with the rule.

#### **Recommendation**

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit modification application for the purposes of this review was received on November 26, 2000.

## Changes To The Part 70 Permit T127-8479-00021

The Part 70 permit is modified to incorporate the installation of the baghouse as follows (changes are bolded and deletions are struck-through for emphasis):

- (1) Section A.2 page 8 of 51 is modified as follows:

Area "B" (~~facilities without controls that do not comply with 326 IAC 6-3~~)

- (v) One (1) 5-foot by 40-foot direct-fired calciner, identified as B-C-1, **with PM emissions controlled by a baghouse** exhausting through V-BCS-1, capacity: 1,500 pounds per hour of copper-zinc and manganese ferrite.

- (2) This change was also incorporated in Section D.3 of the permit as follows:

### SECTION D.3 FACILITY OPERATION CONDITIONS

#### Facility Description [326 IAC 2-7-5(15)] Area "B"

- (v) One (1) 5-foot by 40-foot direct-fired calciner, identified as B-C-1, **with PM emissions controlled by a baghouse** exhausting through V-BCS-1, capacity: 1,500 pounds per hour of copper-zinc and magnesium ferrite.

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.3.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the reprogrammable ferrite bead manufacturing facility shall not exceed the following rate listed in pounds per hour when operating at the process weight rate listed in tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

| Facility                                | Process Weight Rate<br>(tons per hour) | Allowable PM<br>Emission Rate<br>(pounds per hour) |
|---|--|--|
| Direct-fired rotary calciner<br>(B-C-1) | 0.75                                   | 3.38   |

### Compliance Determination Requirements

#### D.3.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

**The Permittee is not required to test the facilities in this section by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if these facilities are in compliance. If testing is required by IDEM, compliance with the Particulate Matter limits specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.**

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- ~~———— (a) ——— Testing of this facility is required, if additional control equipment is not installed, by Powdertech Corporation within 60 – 120 days after permit issuance. ———~~
  - ~~———— (b) ——— Testing of the PM emission rate shall be performed to determine compliance with 326 IAC 6-3-2. The Permittee shall perform PM and PM<sub>10</sub> testing utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM<sub>10</sub>, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.~~

~~D.3.3 Compliance Schedule [326 IAC 2-7-6(3)]~~

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- ~~———— If additional control equipment is not installed and the testing required by Condition D.3.3 does not show compliance with the limit specified in Condition D.3.1, then the Permittee:~~
- ~~———— (a) ——— shall submit within 165 days of permit issuance a schedule to demonstrate compliance with 326 IAC 6-3 for the direct-fired and indirect-fired calciners and within 270 days of permit issuance shall certify that the emissions from the direct-fired and indirect-fired calciners are in compliance with this rule.~~
  - ~~———— (b) ——— shall submit certified progress reports no less frequently than every six (6) months.~~
  - ~~———— (c) ——— shall submit a statement after compliance is demonstrated that the Permittee will continue to comply with all applicable requirements; and~~
  - ~~———— (d) ——— shall continue to comply with such requirements that become effective during the term of this permit.~~

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

~~D.3.4 Visible Emissions Notations~~

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- ~~———— (a) ——— Daily visible emission notations of this facility shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~
  - ~~———— (b) ——— For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~
  - ~~———— (c) ——— In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~
  - ~~———— (d) ——— A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~
  - ~~———— (e) ——— The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.~~
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**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

~~D.3.5 Record Keeping Requirements~~

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- ~~———— (a) ——— To document compliance with Condition D.3.4, the Permittee shall maintain records of daily visible emission notations of the facility's exhaust.~~
  - ~~———— (b) ——— To document compliance with Condition D.3.6, the Permittee shall maintain records of the~~

~~results of the inspections required under Condition D.3.6 and the dates the vents are redirected.~~

~~————(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.~~

## **Conclusion**

The operation of the calciner baghouse shall be subject to the conditions of the attached proposed **Significant Part 70 Permit Modification 127-12930-00021.**

## **Indiana Department of Environmental Management Office of Air Quality**

### **Addendum to the Technical Support Document for a Significant Part 70 Operating Permit Modification**

Source Name: Powdertech Corporation  
Source Location: 5103 Evans Road, Valparaiso, Indiana 46383  
County: Porter  
SIC Code: 3499  
Operation Permit No.: T127-8479-00021 Issuance Date: December 16, 1998  
Permit Modification No.: 127-12930-00021  
Permit Reviewer: Aida De Guzman

On February 7, 2001, the Office of Air Quality (OAQ) had a notice published in the Vidette Times, which is located at 601 West 45<sup>th</sup> Street, Munster, Indiana 46321, stating that Powdertech Corporation had applied for a Part 70 Operating Permit modification to install a baghouse that will make the source in compliance with the compliance schedule of the Part 70 permit. The notice also stated that OAQ proposed to issue a permit for this unit and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

The Office of Air Management (OAM) has changed its name to Office of Air Quality (OAQ). All the permit documents that referenced the old name were revised to reflect the new name.